

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

- 1        1. (Currently amended) A method for protecting an item of private
- 2        information in a database, wherein the method comprises:
  - 3            receiving the item of private information at a database in plain text,
  - 4            wherein the item of private information is used as a key for retrieving data from
  - 5            the database;
  - 6            creating a hash of the item of private information at a database,
  - 7            wherein creating the hash further comprises checking a column attribute for a
  - 8            column, which stores the item of private information, in the database to determine
  - 9            that “privacy” is enabled for the column, and only upon privacy being enabled for
  - 10          the column, creating the hash, wherein the hash of the item of private information
  - 11          is created by the database in a manner that is transparent to an application which
  - 12          manipulates the private information, and wherein the hash is a one-way hash;
  - 13            storing the hash of the item of private information in the database, wherein
  - 14          the hash of the item of private information is a unique lookup key within the
  - 15          database, and wherein the item of private information does not exist in the
  - 16          database in plain-text form;
  - 17            creating an index based on the hash; and
  - 18            discarding the item of private information.

1           2. (Previously presented) The method of claim 1, wherein creating the  
2       hash can include creating at least one of a Secure Hash Algorithm-1 (SHA-1) and  
3       a Message-Digest algorithm 5 (MD5) hash.

1           3. (Cancelled)

1           4. (Original) The method of claim 1, wherein processing a query  
2       containing the private information involves:  
3           receiving the item of private information;  
4           creating a hash of the item of private information; and  
5           querying the database using the hash of the item of private information.

1           5. (Original) The method of claim 1, wherein the item of private  
2       information can include one of:  
3           a social security number;  
4           a driver's license number;  
5           a passport number;  
6           an email address;  
7           a person's name; and  
8           a person's mother's maiden name.

1           6. (Original) The method of claim 1, wherein multiple items of private  
2       information can be combined prior to creating the hash.

1           7 (Cancelled).

1           8. (Original) The method of claim 1, wherein the database is a  
2       Lightweight Directory Access Protocol (LDAP) database.

1       9. (Currently amended) A computer-readable storage medium storing  
2 instructions that when executed by a computer cause the computer to perform a  
3 method for protecting an item of private information in a database, wherein the  
4 method comprises:

5           receiving the item of private information at a database in plain text,  
6 wherein the item of private information is used as a key for retrieving data from  
7 the database;

8           creating a hash of the item of private information ~~at the~~ in the database,  
9 wherein creating the hash further comprises checking a column attribute for a  
10 column, which stores the item of private information, in the database to determine  
11 that “privacy” is enabled for the column, and only upon privacy being enabled for  
12 the column, creating the hash, wherein the hash of the item of private information  
13 is created by the database in a manner that is transparent to an application which  
14 manipulates the private information, and wherein the hash is a one-way hash;

15           storing the hash of the item of private information in the database, wherein  
16 the hash of the item of private information is a unique lookup key within the  
17 database, and wherein the item of private information does not exist in the  
18 database in plain-text form;

19           creating an index based on the hash; and  
20           discarding the item of private information.

1       10. (Previously presented) The computer-readable storage medium of  
2 claim 9, wherein creating the hash can include creating at least one of a Secure  
3 Hash Algorithm-1 (SHA-1) and a Message-Digest algorithm 5 (MD5) hash

1       11. (Cancelled)

1           12. (Original) The computer-readable storage medium of claim 9, wherein  
2 processing a query containing the private information involves:  
3           receiving the item of private information;  
4           creating a hash of the item of private information; and  
5           querying the database using the hash of the item of private information.

1           13. (Original) The computer-readable storage medium of claim 9, wherein  
2 the item of private information can include one of:  
3           a social security number;  
4           a driver's license number;  
5           a passport number;  
6           an email address;  
7           a person's name; and  
8           a person's mother's maiden name.

1           14. (Original) The computer-readable storage medium of claim 9, wherein  
2 multiple items of private information can be combined prior to creating the hash.

1           15 (Cancelled).

1           16. (Original) The computer-readable storage medium of claim 9, wherein  
2 the database is a Lightweight Directory Access Protocol (LDAP) database.

1           17-24 (Cancelled).